

PB Assist®+ Probiotic Defense Formula

Supports healthy digestive functions and immunities*

PRODUCT DESCRIPTION

PB Assist+ is a proprietary formula of pre-biotic fiber and six strains of probiotic microorganisms in a unique double-layer vegetable capsule. It delivers 6 billion CFUs of active probiotic cultures and soluble pre-biotic FOS (fructo-oligosaccharides) that encourage friendly bacterial growth*. The time-release, double-capsule delivery system is designed to help protect the sensitive probiotic cultures from stomach acid. PB Assist+ offers a unique, safe, and effective way to deliver the well-recognized digestive and immune system support benefits of probiotics.*

CONCEPT

Your gastrointestinal (GI) tract is approximately 25 feet long and is responsible for digesting and absorbing the nutrients in the foods you eat, while also helping to eliminate waste products from your body. Beyond these important functions, your GI tract, particularly the intestines, also performs very important immune functions in the body. A healthy intestinal tract is critical for optimal digestive function and immune system support.

Intestinal Immunities

The walls of the intestine are covered with millions of hair-like cellular microstructures called villi and microvilli. It is through the villi that our food nutrients are assimilated for use. (The surface area of the intestinal tract is estimated to be as large as a tennis court!) The villi of the intestine also include specialized immune cells that function as immune messengers alerting mobile immune cells in the blood stream and in other parts of the body when under attack from invaders.

Living on the villi of the intestinal tract is a group of microorganisms called intestinal microflora or microbiota. There is an estimated 10 times more microorganisms in the intestinal tract than the 10 trillion cells making up the human body, suggesting their importance in our physiology. Friendly intestinal microflora have a symbiotic relationship with us, providing healthy digestive and immune system support. When healthy colonies of friendly bacteria are present in the intestine, they help maintain a positive balance and proliferation of beneficial bacteria, while preventing the adherence and colonization of other “bad” microorganisms that can challenge our health and well-being. Healthy colonies of friendly microflora prevent the



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proliferation of unfriendly organisms by competing for nutrients necessary for growth and by crowding them out as they compete for intestinal surface area. They also produce chemical by-products that create an intestinal environment in which “bad” microorganisms cannot flourish.

Acquired Immunities of the GI Tract

Before birth, a healthy baby’s GI tract is free of bacteria and other microorganisms. During the natural birthing process, a baby is exposed to colonies of microflora from his or her mother. As healthy colonies of friendly microflora grow in a new-born baby’s intestinal tract, the baby’s immune system is “trained” or “programmed” to differentiate between unfriendly and friendly microorganisms and respond appropriately. The body’s ability to respond in a measured way to “bad” bacteria and not to respond to “good” bacteria is an important part of overall immune health. By the second year of life, a child’s intestinal microflora is very similar to adults.

Digestion of Food Nutrients

Intestinal microflora also plays a critical role in the breakdown and absorption of food nutrients, particularly carbohydrates. Some strains of intestinal flora produce enzymes the human body cannot produce but are necessary for breaking down certain carbohydrates into short-chain fatty acids, or SCFAs, for digestion. SCFAs are a major source of food energy and metabolism for bacteria and also support the cardiovascular system. SCFAs also contribute to the proliferation and specialization of epithelial cells in the intestine and to the healthy function of the gut. In addition to helping the digestion of carbohydrates, gut microflora also produce vitamin K and can help with absorption of other nutrients such as calcium, magnesium, and iron.

Probiotic Supplementation

There are many ways intestinal microflora can be compromised or even killed. Stress, physical exertion, toxins in our diet, exposure to harmful microorganisms, and other factors can pose significant challenges to the colonization and function of friendly microorganism in the gut. Healthy intestinal microflora is also challenged

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in people whose diets consist of high levels of animal fats and proteins and are low in fiber. Furthermore, studies have shown a steady decline in friendly intestinal flora in both men and women as they age. When intestinal microflora is compromised, the digestive and immune systems function sub-optimally. To help maintain a healthy microflora balance, supplemental strains of friendly microorganisms, or probiotics, can be used as part of regular dietary supplement program.*

PB Assist®+ Probiotic Defense Formula

dōTERRA PB Assist+ is a proprietary blend of six active strains of friendly probiotic microorganisms that support healthy colonies of friendly microflora in the gut.* PB Assist+ includes active strains of Lactobacillus acidophilus, Lactobacillus salivarius, and Lactobacillus casei to promote healthy colonization and function of microflora higher in the intestinal tract, and Bifidobacterium lactis, Bifidobacterium bifidum, and Bifidobacterium longum for healthy digestive and immune function of the lower intestine.* Each of these proprietary strains has been demonstrated to have superior propensity for intestinal adhesion and colonization.*

Unique Double-Layer Pre- and Probiotic Delivery System

PB Assist+ employs a unique double-layer capsule delivery system that provides a short-chain FOS pre-biotic fiber in the outer capsule and a time-release inner capsule providing active probiotic cultures. FOS, or fructo-oligosaccharides, are indigestible fibers that are found in fruits and vegetables that have the ability to selectively promote the growth of friendly bacteria.

Inside the outer capsule delivering the pre-biotic FOS is a small inner capsule with 6 billion CFU (Colony Forming Units) of six active strains of lacto- and bifido-probiotic cultures. The time-release inner capsule is designed to help protect the probiotic cultures from the harsh environment of the stomach delivering the active benefits of the cultures to the site of

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adhesion in the intestinal tract. The combination of pre-biotic FOS and active probiotic cultures in a single delivery system represents a comprehensive intestinal flora support system that is safe and effective.

PRIMARY BENEFITS

- Promotes a positive balance and proliferation of beneficial bacteria*
- Maintains healthy intestinal microflora balance*
- Supports healthy functioning of the digestive and immune systems*
- Supports the health of the GI tract, particularly the intestines and colon*
- Helps support optimal metabolism and absorption of food*

DIRECTIONS FOR USE

Take one double-layer capsule three times daily with food for 10 days each month to promote colonization of friendly digestive flora.* Can be used more frequently and for extended periods of time when digestive flora has been compromised by digestive stressors. PB Assist®+ also may be used when traveling to boost digestive immunities, or once a day as an ongoing maintenance program for people with occasional digestive discomfort.*

CAUTIONS

Some people may experience an initial change to digestive schedule and function when they begin using pre-biotic FOS and probiotics. For most people, these symptoms are mild and should disappear after a few days. Pregnant or nursing women and people with known medical conditions should consult a physician before using. Do not use if bottle is opened or capsules are broken.

Note: Although the PB Assist+ double-layer encapsulation technology makes it unnecessary to refrigerate, it is suggested that unopened bottles of PB Assist+ be stored in a cool, dry place and opened bottles be refrigerated when possible.

FAQs

Q: Why do I need six strains and 6 billion CFUs of probiotics?
A: Having six unique strains helps promote healthy colonization and function of microflora.* They support healthy digestive and immune functions throughout the intestines.* Each of these unique strains has been demonstrated to have superior propensity for intestinal adhesion and colonization.* Six billion CFUs provide a beneficial dose of good bacteria in each capsule.

Q: What is the difference between probiotics and prebiotics?
A: Prebiotics are indigestible fibers that are found in fruits and vegetables and have the ability to selectively promote the growth of friendly bacteria while discouraging the growth of less friendly intestinal microbes. Probiotics are microorganisms that support healthy colonies of friendly microflora in the gut.*

Q: Why do probiotics and prebiotics need to be separated by an inner and outer capsule?
A: This unique delivery system is designed to help ensure the live active cultures will be released in the small intestine. The outer capsule must be dissolved, the FOS prebiotic fiber suspended in a thick viscous fluid must be dissolved away in the digestive fluid, and then the inner capsule must dissolve.

Q: Does the green inner capsule have any synthetic colorants?
A: The green color in the PB Assist+ inner capsule comes from chlorophyll, the all-natural green pigment found in all plants.

Q: Should I take PB Assist+ at the same time that I take GX Assist®?
A: We recommend using GX Assist for ten days (three capsules per day with meals) followed by PB Assist+ for ten days (three capsules), then PB Assist+ (one capsule per day) after that.

Q: Do I need to keep PB Assist+ refrigerated?
A: Although it is best to keep PB Assist+ out of the heat, it is not necessary to refrigerate. PB Assist+ is tested for shelf life and stability and will retain its activity level when stored under normal conditions. Dry probiotic cultures such as the ones used in our PB Assist+ capsules are not activated until they are released in the gut and exposed to moisture.

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COMPLEMENTARY PRODUCTS

- dōTERRA Daily Nutrient Pack™
- Lifelong Vitality Pack
- DigestZen TerraZyme®
- GX Assist®

KEY STUDIES

Rupa P, Mine Y. Recent advances in the role of probiotics in human inflammation and gut health. *Journal of Agricultural and Food Chemistry*. 2012;60:8249-8256.

Ng SC, Lam EFC, Lam TTY, et al. Effect of probiotic bacteria on the intestinal microbiota in irritable bowel syndrome. *Journal of Gastroenterology and Hepatology*. 2013;28:1624-1631.

Hempel S, Newberry SJ, Maher AR, et al. Probiotics for the prevention and treatment of antibiotic-associated diarrhea. *Journal of the American Medical Association*. 2012;307(18):1959-1969.

Messaoudi S, Manai M, Kergourlay G, et al. *Lactobacillus salivarius*: Bacteriocin and probiotic activity. *Food Microbiology*. 2013;36:296-304.

Elazab N, Mendy A, Gasana J, et al. Probiotic administration in early life, atopy, and asthma: a meta-analysis of clinical trials. *Pediatrics*. 2013;123:e666-e676.

Supplement Facts

Serving Size: 1 double-layer vegetable capsule
Servings per container: 30

	Amount Per Serving	% DV
PB Assist+ Probiotic Blend:	6 Billion CFU	**
L. acidophilus, B. lactis, L. salivarius, L. casei, B. longum, B. bifidum		
FOS (Short Chain) prebiotic	50 mg	**

**Daily Value Not Established

Other ingredients: Vegetable Glycerin, Vegetable Hypromellose, Vegetable Cellulose, Magnesium Stearate, Silica, Chlorophyllin

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